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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.
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09/312,073 05/13/99 USUI

M 448563/163

EXAMINER

MM91/1017

LAWRENCE ROSENTHAL
STROOCK & STROOCK & LAVAN LLP
180 MAIDEN LANE
NEW YORK NY 10038

NGHIEM, M

ART UNIT

PAPER NUMBER

2861

DATE MAILED:

10/17/01

Please find below and/or attached an Office communication concerning this application or proceeding.

Commissioner of Patents and Trademarks

Office Action Summary

Application No.

09/312,073

Applicant(s)

USUI ET AL.

Examiner

Michael P Nghiem

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on ____.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-39, 41-65, 67-73 and 83-91 is/are pending in the application.
- 4a) Of the above claim(s) 1-14, 24-35 and 91 is/are withdrawn from consideration.
- 5) ☒ Claim(s) 15-23, 48-61 and 87-90 is/are allowed.
- 6) ☒ Claim(s) 36-39, 41, 43, 46, 62-65, 67, 69, 72, 84 and 86 is/are rejected.
- 7) ☒ Claim(s) 42, 44, 45, 47, 68, 70, 71, 73, 83 and 85 is/are objected to.
- 8) ☐ Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on ____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on ____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☒ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. ____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892) 4) ☐ Interview Summary (PTO-413) Paper No(s). ____
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948) 5) ☐ Notice of Informal Patent Application (PTO-152)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449) Paper No(s) 13, 16, 17. 6) ☐ Other: ____

DETAILED ACTION

The Amendment filed on August 29, 2001 has been acknowledged.

Election/Restriction

1. Newly submitted claim 91 is directed to an invention that was non-elected without traverse in paper number 11 for the following reasons: "... engaging recess (177) is engageable with a lifter (176) ..." is shown in Fig. 13 of non-elected Invention V.

Accordingly, claim 91 is withdrawn from consideration as being directed to a non-elected invention.

Claim Objections

2. Claim 65 is objected to because of the following informalities:

- "?????" should be deleted.

Appropriate correction is required.

Claim Rejections - 35 USC § 102

3. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

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A person shall be entitled to a patent unless --

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 36-39, 41, 43, 46, 62-65, 67, 69, 72, 84, and 86 are rejected under 35

U.S.C. 102(b) as being anticipated by Mochizuki et al. (EP 516 088).

Mochizuki et al. discloses all the claimed features of the invention including:

- an ink jet printer (Fig. 5), comprising:

- a carriage (9), said carriage having a projecting member (17) and an ink supply needle (15) extending therefrom;

- a print head (18) including a plurality of nozzles (inherent feature of ink jet print head) through which ink is ejected mounted on said carriage;

- an ink cartridge (8), said ink cartridge being mounted on the carriage (Fig. 4)

and, said ink cartridge comprising:

- a housing (housing of 8) containing ink;

- an ink supply port (2) formed on a wall (4a) of said housing (Fig. 4); and

- at least one engaging recess (4g) formed in the wall of said housing adjacent to and apart from said ink supply port (Fig. 4), said engaging recess being engageable with a projecting member (17) of the printer when the ink cartridge is mounted on the printer, wherein the engaging recess and the projecting member of the printer align the ink supply port with an ink supply needle (15) of the printer prior to the insertion of the ink needle into the ink supply port (Fig. 4),

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- the height of the projecting member is greater than that of the ink supply needle of the ink jet printer (Fig. 4),
- an abutment member (portion of 4a excluding 4g, 4h) which abuts against the projecting member of the ink jet printer when the ink cartridge is mounted improperly (other portion of 4a excluding 4g, 4h abuts 17 if 8 is mounted improperly),
- said abutment member includes a part of said wall of said housing where the engaging recess is not formed (Fig. 4),
- said ink supply port protrudes from said wall of said housing (2 protrudes from 4a),
- said engaging recess comprises an even number of engaging recesses (two position determining holes, 4g, 4h),
- at least two of the engaging recesses are disposed along a line (Fig. 4),
- said abutment member includes a part of said wall of said housing where said engaging recess is not (Fig. 4),
- the engaging recesses along the same line are formed by separate recesses (4g, 4h).

Allowable Subject Matter

4. Claims 15-23, 48-61, and 87-90 are allowed.

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5. Claims 42, 44, 45, 47, 68, 70, 71, 73, 83, 85 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

Reasons For Allowance

6. The combination as claimed wherein when the ink cartridge is packed, the pressure within a space being lower than the atmospheric pressure, wherein the recess is isolated from an interior of the ink chamber and exposed to an exterior of the ink chamber (claims 15, 58) or an engaging recess comprises an odd number of engaging recesses (claims 42, 68) or an engaging recess is rectangular in cross section (claims 47, 73) or at least one engaging recess formed on said lid, said engaging recess being engageable with a projecting member of the printer when the ink cartridge is correctly mounted on the printer and said engaging recess being at least partially covered by a film which can be removed from the ink cartridge to create an air communication port to the atmosphere (claims 57, 87) is not disclosed, suggested, or made obvious by the prior arts of record.

Response to Arguments

7. Applicant's arguments have been considered but are traversed in view of the new ground(s) of rejection.

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Applicant argues that Shinada '465 does not teach a pair of engaging recesses formed in the wall of a housing adjacent to and apart from the ink supply port and a mating projecting member of the printer engageable with the engaging recess, the engaging recess can be contacted with and guided by the projecting member to align the ink supply port with the ink supply needle prior to insertion of the ink needle into the ink supply port. The recess and projection of Shinada cannot avoid the reverse orientation insertion nor the offset.

Examiner's position is that Mochizuki '088 discloses a pair of engaging recesses (4g, 4h) formed in the wall (4a) of a housing (4) adjacent to and apart from the ink supply port (2) and a mating projecting member (16, 17) of the printer engageable with the engaging recess (Fig. 4), the engaging recess can be contacted with and guided by the projecting member to align the ink supply port with the ink supply needle prior to insertion of the ink needle into the ink supply port (Fig. 4) for preventing the improper mounting of the ink cartridge (8).

Conclusion

8. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Sasaki (US 6,270,207) discloses an ink cartridge (1) wherein at least one recess (33) forming a space in an outer surface of said lid (as opposed to an inner surface of 4 formed by 34, Fig. 19) when the ink cartridge is packed under a vacuum condition (via

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81), the pressure within said space being lower than the atmospheric pressure when the ink cartridge is packed (column 18, lines 44-46), wherein said recess is isolated from an interior of the ink chamber and exposed to an exterior of the ink chamber (Fig. 19).

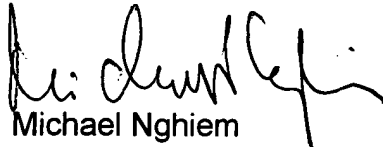
DeFilippis (US 5,905,518) discloses an ink cartridge (50) wherein a recess (62) is isolated from an interior of the ink chamber and exposed to an exterior of the ink chamber (Fig. 2).

9. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the date of this final action.

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10. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Michael Nghiem whose telephone number is (703) 306-3445. An inquiry of a general nature or relating to the status of this application should be directed to the Group receptionist at (703) 308-0956.


Michael Nghiem

October 15, 2001